

REMARKS

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. The status of the claims is as follows:

- Claims 1–42 are currently pending.
- Claims 2, 16, 17, 20, 33–39, and 42 are canceled herein.
- Claims 1, 3–5, 7–15, 18, 19, 21–23, 29–32, 40, and 41 are amended herein.
- New claims 43–54 are added herein.

Support for the amendments and additions to the claims is found in the specification, as originally filed, at least at page 1, line 19; page 3, line 1–page 4, line 1; page 5, lines 9–16; page 9, lines 10–11 and 24; page 11, line 3; and page 31, lines 15–20. The amendments and new claims submitted herein do not introduce any new matter.

Claims 1–15, 21–30, 32–39, 41 Recite Statutory Subject Matter Under § 101

Claims 1–15, 21–30, 32–39, 41, and 42 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant respectfully traverses this rejection.

Nevertheless, for the sole purpose of expediting prosecution and without commenting on the propriety of the Office's rejections, Applicant herein amends claims 1, 21, 30, and 41 as shown above. Applicant cancels claim 42 without prejudice, waiver, or disclaimer of the subject matter. Accordingly, the § 101 rejections are now moot.

Cited Documents

The following documents have been applied to reject one or more claims of the Application:

- **Ding:** Ding, "Analysis of gene expression profiles: class discovery and leaf ordering", RECOMB 2002, Paril 2002, Washington, DC, pp 127–136.
- **Uomini:** Uomini, U.S. Patent No. 5,819,269
- **Gage:** Gage, et al., U.S. Patent No. 5,923,846

Claims 1, 3–15, 18, 19, 21–32, 40, and 41 Are Non-Obvious Over Ding and Uomini

Claims 1–34, 36, 37, and 39–42 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Ding in view of Uomini. Applicant cancels claims 2, 16, 17, 20, 33–34, 36, 37, 39, and 42 without prejudice, waiver, or disclaimer of the subject matter. Applicant respectfully requests reconsideration in light of the amendments presented herein.

Independent Claim 1

Claim 1, as amended herein, recites, in part:

cross-postings between two of the newsgroups represented as an edge between vertices corresponding to the two newsgroups

Ding is directed to "class discovery and leaf ordering problems using spectral graph partitioning methodologies." Ding, Abstract. Ding mentions prior work involving "internet newsgroup clustering" and discusses "a weighted graph G with weight matrix W ." Ding, p. 3, section 4.1. However, Ding provides no further details about how the

graph is weighted. Also, as acknowledged by the Office, “Ding does not explicitly indicate ‘cross-postings relating to the subset of newsgroups.’” Office Action, p. 4.

Uomini is directed to “dynamically subgrouping messages in a news network.” Uomini, Abstract. Uomini explains that “[e]ach message can be assigned one or more categories... [and] [c]ategories can have a hierarchical structure of categories and subcategories.” Id. The categories of Uomini are provided in addition to the typical newsgroup labels. “[E]ach message can be assigned one or more categories as well as being assigned one or more conventional newsgroup label[s].” Uomini, column 4, lines 2–4. Uomini also mentions that “[a]s is well known in the art, a poster can ‘cross-post’ by selecting more than one newsgroup.” Uomini, column 7, lines 44–45. However Uomini contains no further discussion of cross-postings.

Consequently, the combination of Ding and Uomini does not teach or suggest at least “*cross-postings between two of the newsgroups represented as an edge between vertices corresponding to the two newsgroups*,” as recited in amended claim 1. Beyond a single brief mention in Uomini, the two references contain no discussion of cross-postings. Accordingly, there is no teaching or suggestion in the cited references that a cross-post could represent an edge between two vertices in a weighted graph.

Therefore, the combination of Ding and Uomini does not teach or suggest all of the features of amended claim 1. Accordingly, Applicant respectfully requests that the Office withdraw the § 103 rejection of claim 1.

Independent Claims 21, 30, 40, and 41

Claim 21, as amended herein, recites, in part:

cross-posts between two of the newsgroups are represented as edges between two of the vertices corresponding to the two newsgroups

Accordingly, claim 21 is allowable over the combination of Ding and Uomini for at least the reasons discussed above in analysis of independent claim 1.

Claim 30, as amended herein, recites, in part:

cross-postings between two of the subset of newsgroups [are] represented as edges between vertices corresponding to the two newsgroups

Accordingly, claim 30 is allowable over the combination of Ding and Uomini for at least the reasons discussed above in analysis of independent claim 1.

Claim 40, as amended herein, recites, in part:

cross-postings between newsgroups [are] represented as edges between the vertices, wherein a weight of the edges is based at least in part on a number of cross-postings between the two newsgroups

Claim 40 is allowable over the combination of Ding and Uomini for at least the reasons discussed above in analysis of independent claim 1. Additionally, the combination of Ding and Uomini does not teach or suggest “a weight of the edges [that] is based at least in part on a number of cross-postings between the two newsgroups,” as recited in claim 40. In Ding “[t]he similarity or association with in a cluster is the sum of all edge-weights within A or B.” Ding, page 3, section 4.1. However, Ding does not explain how the edges are weighted and, as acknowledged by the Office, Ding is silent

regarding cross-posts. Uomini does not discuss edges of weighted graphs. Accordingly, claim 40 is allowable for at least this additional reason.

Claim 41, as amended herein, recites, in part:

cross-postings relating to the subset of newsgroups [are] represented as edges, wherein vertices are weighted based at least in part on a number of postings to the corresponding newsgroups and the edges are weighted based at least in part on a number of cross-postings between two newsgroups

Claim 41 is allowable over the combination of Ding and Uomini for least the reasons discussed above in analysis of independent claim 1. Additionally, the combination of Ding and Uomini does not teach or suggest “vertices [that] are weighted based at least in part on a number of postings to the corresponding newsgroups,” as recited in amended claim 41. Ding mentions Internet newsgroup clustering and a weighted graph but is silent about any specific techniques for weighting Internet newsgroups. Uomini is silent about any type of weighted graph. Furthermore, the combination of Ding and Uomini also does not teach or suggest “edges [that] are weighted based at least in part on a number of cross-postings between two newsgroups,” for at least the reasons discussed above in analysis of claim 40. Accordingly, claim 41 is allowable for all of the above reasons.

Therefore, the combination of Ding and Uomini does not teach or suggest all of the features of amended claims 21, 30, 40, and 41. Accordingly, Applicant respectfully requests that the Office withdraw the § 103 rejection of claims 21, 30, 40, and 41.

Dependent Claims 3–15, 18, 19, 22–29, 31 and 32

Claims 3–15, 18, 19, 22–29, 31 and 32 ultimately depend from independent claims 1, 21, or 30. As discussed above, claims 1, 21, and 30 are allowable over the cited documents. Therefore, claims 3–15, 18, 19, 22–29, 31 and 32 are also allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

Accordingly, Applicant respectfully requests that the Office withdraw the § 103 rejection of claims 3–15, 18, 19, 22–29, 31 and 32.

The Rejection of Claims 35 and 38 as Obvious Over Ding, Uomini, and Gage is now Moot

Claims 35 and 38 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Ding, Uomini, and Gage. Applicant cancels claims 35 and 38 without prejudice, waiver, or disclaimer of the subject matter. Accordingly, the rejection of these claims is now moot.

New Claims 43–54

Applicant adds new claims 43–54 to provide an additional scope of coverage commensurate with the original disclosure. Claims 43–54 ultimately depend from one of independent claims 1, 21, 30, or 40. As discussed above independent claims 1, 21, 30, and 40 are allowable over the cited documents of record. Therefore, claims 43–54 are

also allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

Accordingly, Applicant respectfully requests allowance of claims 43–54.

Conclusion

For at least the foregoing reasons, all pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application.

If any issues remain that would prevent allowance of this application, **Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Action.**

Respectfully Submitted,

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